

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Saint-Gobain

South Carolina Manufacturing Extension Partnership

Saint-Gobain Improves Production Lead Time Using Lean Techniques

Client Profile:

Norton Company, founded in 1885 in Traveler's Rest, South Carolina, provided abrasive products to the automotive, aerospace, woodworking, bearing, sporting goods, do-it-yourself, and foundry markets until it was acquired by Saint-Gobain Abrasives in 1990. Headquartered in France, Saint-Gobain is the world's leading abrasives manufacturer. The company has a strong presence in the U.S. and operates facilities throughout Europe, Asia, and Latin America. Saint-Gobain provides bonded abrasives, coated abrasives, and superabrasives for precision grinding in a wide range of applications, and sells its products through the internet, distributors, catalogs, home improvement and woodworking retailers, and the automotive aftermarket. The South Carolina facility employs approximately 80 people, and its customers include General Motors, Ford, and General Electric.

Situation:

Saint-Gobain's South Carolina plant managers weren't seeing the kind of value they'd expected from their lean manufacturing initiatives. Deciding that formal instruction might offer insight, they attended a Lean 101 workshop at Greenville Technical College. There, they met representatives from the South Carolina Manufacturing Extension Partnership (SCMEP), a NIST MEP network affiliate. Saint-Gobain's managers explained their struggle to see the value in lean concepts, and SCMEP introduced them to Premiere Source Lean Manufacturing Group (PSLMG), a third-party consulting company specializing in the implementation of lean manufacturing initiatives. The three companies agreed to work together to help Saint-Gobain's lean initiatives succeed.

Solution:

SCMEP assessed Saint-Gobain's South Carolina plant and produced a Competitiveness Review (CR) report to benchmark the company's current state. Then, working together with PSLMG and Saint-Gobain employees, SCMEP conducted a value stream mapping (VSM) exercise to identify process improvements and target areas with problems. The team identified a problem in the Travelers Rest facility: production lead time was 27.5 days from the time a customer's order hit the floor to the time it was shipped out the door, not counting the additional 13 days of scheduled time needed to move orders through the customer service and engineering departments. To keep the plant competitive, lead time needed to be reduced immediately.

As an initial step, group leaders planned two four-day kaizen events to decrease production time by establishing a more efficient flow of made-to-order products in Saint-Gobain's production lines. Each implementation event involved intensive team analysis and involvement, and used standard work and cell design lean tools.

During the kaizen events, the team moved several machines, including milling equipment, CNC machines, and lathes, into a more efficient layout. The team also identified opportunities to improve scheduling processes, thereby reducing the 13 days of pre-production waiting time.

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Results:

- * Reduced production lead time from 27.5 days to approximately 12.5 days
- * Reduced required scheduling time from 13 days to 5 days.
- * Increased productivity by 10 to 20 percent.

Testimonial:

"The South Carolina Manufacturing Extension Partnership and Premiere Source Lean Manufacturing Group helped us get a head start on implementing lean manufacturing techniques and understanding how those techniques could really benefit our organization. We are now implementing more lean initiatives plant-wide and expect to see even greater results from our efforts."

Pascal Riviere, Manufacturing Director